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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,246	03/31/2004	Andrew C. Williamson	29364.00	8149
22465	7590	05/02/2005		
PITTS AND BRITTIAN P C P O BOX 51295 KNOXVILLE, TN 37950-1295				
EXAMINER BERMAN, JACK I				
ART UNIT		PAPER NUMBER		
2881				

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/815,246

Applicant(s)

WILLIAMSON ET AL.

Examiner

Jack I. Berman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/31/2004</u> . | 6) <input type="checkbox"/> Other: ____. |

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Wiberg et al.

Wiberg et al. discloses a closure (first and second doors 3, 4) for shielding, and selectively providing access to, the targeting assembly (compartment 9) of a particle accelerator (a cyclotron), the particle accelerator including a housing defining an opening (covered by doors 3, 4) for accessing the targeting assembly, the particle accelerator being surrounded by an outer shielded enclosure (molded sections 1, 2, 3, 4) providing selective access to the particle accelerator, said closure comprising a first door (3) and a second door (4) for selectively covering the opening in the housing of the particle accelerator, and said closure including a door mounting assembly including hinge assemblies (5) to facilitate pivotally mounting said first and second doors on the housing of the particle accelerator, whereby said first and second doors of said closure selectively cover the opening in the housing of the particle accelerator when access to the particle accelerator through the outer shielded enclosure is provided.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4, 5, 8-10, 14, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiberg et al. in view of Warren et al. Wiberg et al. appears to show the door mounting hinge assemblies mounted directly on the housing. Warren et al., on the other hand, teaches that radiation shielding doors (44, 46) can be more easily mounted in an opening in a housing by providing a frame (ring sections 16, 18) that supports the doors and mounting the hinge assemblies (22, 24) on the frame rather than directly on the housing. It would have been obvious to a person having ordinary skill in the art to provide such a frame to support the doors in the Wiberg et al. closure in order to take advantage of the greater ease of mounting taught by Warren et al. Such a frame would inherently include a sill member (the bottom edge of the opening), a header member (the top edge of the opening), and first and second jamb members (the left and right edges of the opening) because these are the names used in the art to specify the respective edges of a door opening and no door opening can be defined without such edges. Wiberg et al. further teaches that each said first and second door should be substantially rectangular and define outboard and inboard edges, and upper and lower edges, and that each of the first and second jamb members defines a front surface, the outboard edge of the first door being pivotally secured to said first sill member with said first hinge assembly such that said first door covers said front surface of said first jamb member when said first door is in the closed

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position, and said outboard edge of said second door being pivotally secured to said second sill member with said second hinge assembly such that said second door covers said front surface of said second jamb member when said second door is in said closed position. While Wiberg et al. describes only the doors of the outer shielded enclosure of the particle accelerator, lines 11-16 in column 4 of the patent teaches that the targeting assembly compartment (9) should also be provided with doors supported by hinges for easy access to the processing systems inside the compartment. It would have been obvious to a person having ordinary skill in the art to make these targeting assembly doors in the same form as the outer doors described by Wiberg et al. rather than to change the design, and thereby complicate assembly of the overall device, and to use the frame mounting system disclosed by Warren et al. in order to take advantage of the greater ease of assembly taught by Warren et al.

Claims 2, 6, 7, 15, 16, 23, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiberg et al. and Warren et al. as applied to claims 4, 5, 8-10, 14, 17, and 18 above, and further in view of O'kane, SR. et al. While Wiberg et al. teaches to make the shielding of the targeting assembly (including the doors thereof) of lead, O'kane, SR. et al. teaches in paragraph [0042] that copper is equivalent to lead as a high Z material suitable for shielding purposes. The replacement of the lead doors of the Wiberg et al. targeting assembly, with or without the frame taught by Warren et al., with copper doors would therefore have been an obvious substitution of known equivalents.

Claims 11, 12, and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiberg et al. and Warren et al. as applied to claims 4, 5, 8-10, 14, 17, and 18 above, and further in view of Bryant. As is illustrated in Figure 8, Bryant teaches to provide rabbets (shown in the

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drawing by the dashed line for the opening 200) along the edges of a doorway in radiation shielding. This arrangement prevents radiation from leaking around the edges of the door. It would have been obvious to a person having ordinary skill in the art to apply this teaching to the Wiberg et al./Warren et al. door discussed above by defining rabbets in all four edges around the door opening, i.e. the sill member, the header member, and both jamb members so as to prevent radiation leakage. Warren et al. also teaches, as is illustrated in Figure 3 and discussed at lines 48-52 in column 5, to form a rabbet in the inboard edge of at least one of two doors in a radiation shielding door so that the inboard edges of the two doors overlap when they are closed so as to prevent radiation “streaming” through a gap between the two doors. It would also have been obvious to a person having ordinary skill in the art to apply this teaching to the Wiberg et al./Warren et al. door discussed above by defining rabbets in at least one of the doors to prevent this streaming. It would have been obvious to a person having ordinary skill in the art to provide complementary rabbets in both doors to achieve the required overlap. This would allow the two doors to close flat against the doorframe. Warren et al. further teaches to provide first and second securing pins (32) and corresponding holes in the doors and header members (arms 26) to lock the two doors in a desired position. While Warren et al. uses this locking mechanism to secure the doors in an open position, it would have been obvious to a person having ordinary skill in the art to use a similar mechanism to secure the doors in a closed position if having the doors come open accidentally was considered to be a bigger problem than having them close accidentally.

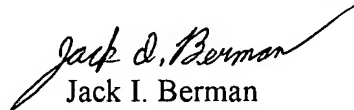
Claims 13, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiberg et al., Warren et al., and Bryant as applied to claims 11, 12, and 19-22 above, and further in view of O’kane, SR. et al. as applied to claims 2, 6, 7, 15, 16, 23, 24, and 25 above.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack I. Berman whose telephone number is (571) 272-2468. The examiner can normally be reached on M-F (8:30-6:00) with every second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jack I. Berman
Primary Examiner
Art Unit 2881

jb
4/28/05